Idahoans for Sensible Water Regulation

When Sound Science Meets Common Sense

Idaho
Water Quality Standards
Issue Summary

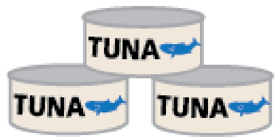
CLEAN WATER ACT

- EPA requires states to periodically review water quality standards.
- Review of “designated use.”
- Review of water quality to support that use.
- Fish Consumption Rate.
- Mixing Zones.

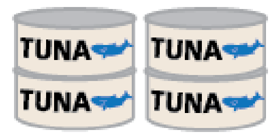
What is the Fish Consumption Rate and why does it matter?

- Fish Consumption Rate (FCR) is an estimate of how much fish a given population consumes
- Important because it's a key variable in formula to set Human Health Water Quality Criteria (HHWQC)
- HHWQC drive water quality standards that dictate discharge and stormwater permits for municipal wastewater and industrial facilities

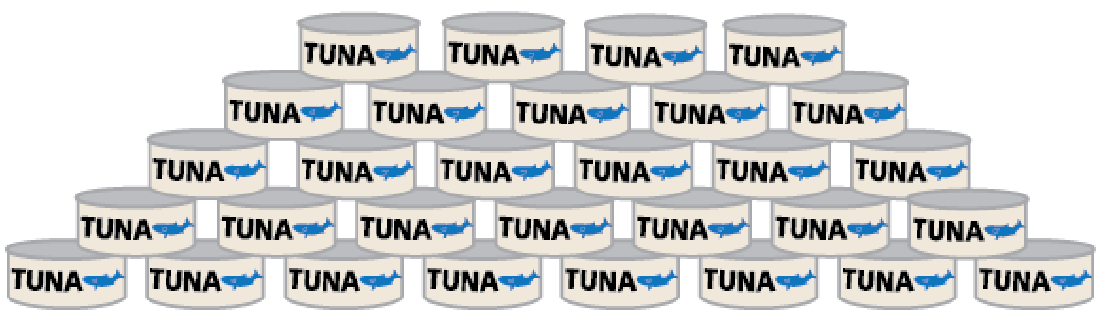
How Much Fish Are We Talking About?



Idaho Current Standard:
3 cans per month



EPA's new guidance:
4 cans per month



Oregon Standard: 30 cans per month

How Much Fish Are We Talking About?

Idaho

17.5 grams/day = 14.1 pounds/year

(per 2000 EPA guidance)

Federal EPA

22 grams/day = 17.7 pounds/year

(May 2014)

Oregon Standard

175 grams/day = 140.8 pounds/year

Oregon: They're Talking a LOT of Fish

Oregon:

9856 pounds

of fish in a lifetime

nearly 5 tons!

- Oregon standard equates to eating about 280 8-oz. trout per year
- Standards formula assumes that consumers will eat that much fish each and every year for 70 years

Two Other Unrealistic Assumptions

- Standard formula includes all types of fish
  - Salmon spend a small percentage of their lives in state waters.
  - Studies estimate that Chinook salmon accumulate 85 percent of all toxins while in the ocean* (not impacted by state regulations)
  - Standard-setting formula assumes that people consume 3 liters per day of untreated surface water (lakes, ponds, streams)
  - Equivalent to 289 gallons of untreated water per year

* National Council for Stream and Air Improvement Inc. Information extracted from WDOE's TIP (WDOE 2013)

How Idaho Got to This Point

- Clean Water Act requires states to set water quality standards
- Idaho complied with EPA's then-guidance of 17.5 grams per day in 2005
- Six-and-half years later, EPA Region 10 rejects Idaho standard in May 2012
- Negotiated rulemaking process with EPA began in August 2012

What Happened in Oregon

- State initially proposal standard based on 17.5 g/day per EPA's then-guidance (2004)
- Six years later, EPA region 10 rejects the state standard (2010)
- New standard based on 175 g/day approved (May 2011)
- Other parts of Oregon's rule are also restrictive:
  - Excess lifetime cancer risk for carcinogens: 1 in 1,000,000 at 175 grams per day
  - Relative source contribution: 25% (Assumes that all other pathways contribute 3/4 of all exposure to toxins, OSHA assumes 100%)

What's Now Happening in Oregon

- Impact of resulting water quality standards just beginning to be felt:
  - First permit renewal applications filed
  - Local government concerns regarding costs
  - Activist challenging renewals / threatening lawsuits

OREGONIAN MEDIA GROUP

> *"Advanced treatment spurred by a new fish consumption standard could cost Portland $1.1 billion to $6.8 billion in capital costs for its sewage treatment system alone, the Oregon Association of Clean Water Agencies estimated. Those expenses would be passed on to ratepayers. 'The technology is not even known to treat down to the level (of contaminants) we're talking about,' said Susie Smith, the association's chairwoman and Springfield's public works director. 'And the (sewage plants) are such a small amount of the total discharge that spending the dollars that way will not solve the problem.'"*

What's Happening in Washington

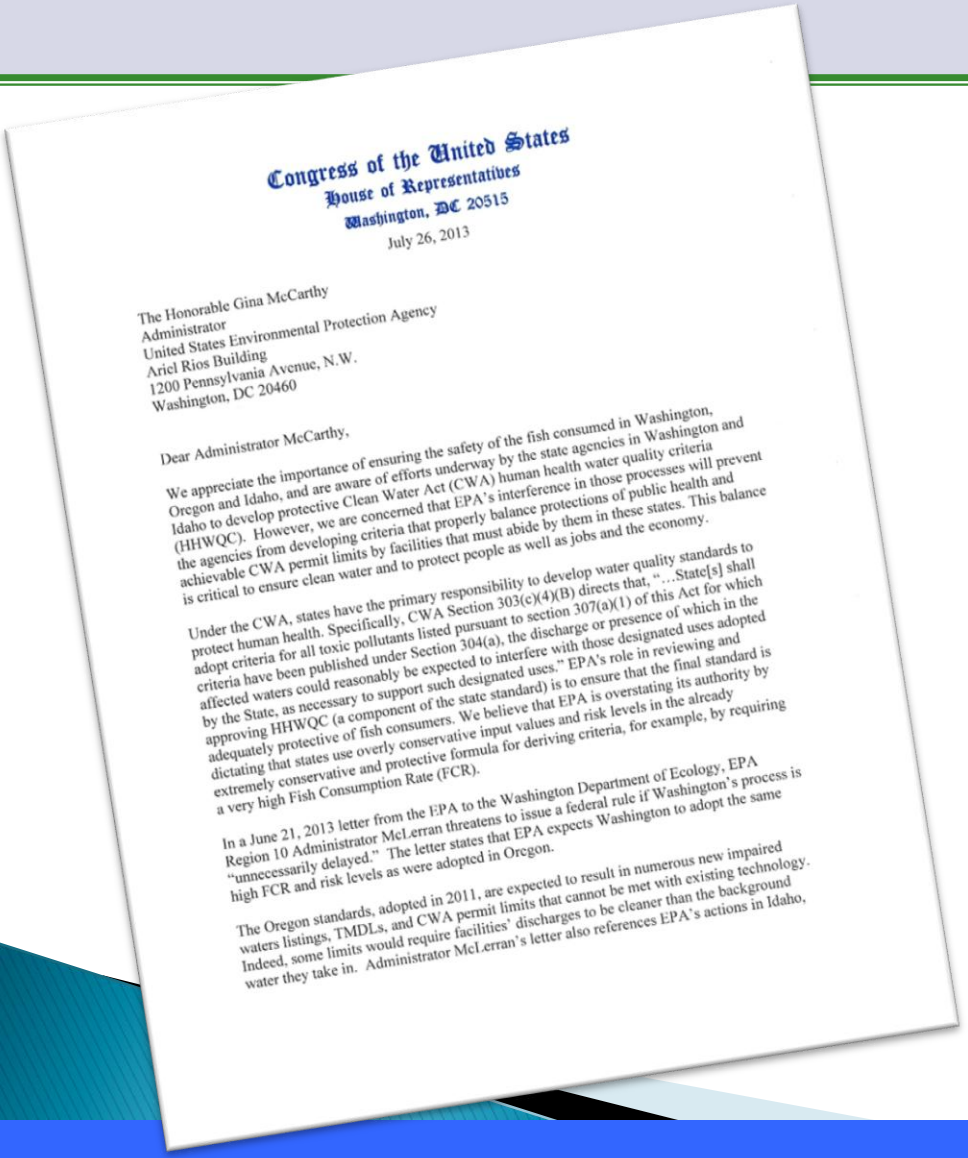
- Gov. Inslee and Dept. of Ecology has proposed a rule (not a legislative process as in Idaho)
- Issuance of draft rule triggered a six-month review and finalization process
- Legislators skeptical of process and potential impacts
- City of Bellingham estimates monthly sewer bills could increase from $35 to $200
- Business and labor concern re: economic impact:
  - People for Washington's Waters and Workers
  - Communication with Governor's office
  - Public information / media campaign

PW3
PARTNERSHIP FOR WASHINGTON'S
waters and workers

HDR Engineering Technical Assessment

- Analysis funded by AWB, WA Cities, WA Counties
- Even advanced treatment technologies won't meet standards:
  - Can't meet standard for PCB's (OR standard for PCB's lower than current ability to measure)
  - Unlikely to meet them for arsenic (OR standard lower than natural background concentrations)
  - Unknown on benzo(a)pyrene or mercury
- Significant investments won't lead to compliance

Congressional Concern



Congress of the United States
House of Representatives
Washington, DC 20515

July 26, 2013

The Honorable Gina McCarthy
Administrator
United States Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator McCarthy,

We appreciate the importance of ensuring the safety of the fish consumed in Washington, Oregon and Idaho, and are aware of efforts underway by the state agencies in Washington and Idaho to develop protective Clean Water Act (CWA) human health water quality criteria (HHWQC). However, we are concerned that EPA's interference in those processes will prevent the agencies from developing criteria that properly balance protections of public health and achievable CWA permit limits by facilities that must abide by them in these states. This balance is critical to ensure clean water and to protect people as well as jobs and the economy.

Under the CWA, states have the primary responsibility to develop water quality standards to protect human health. Specifically, CWA Section 303(c)(4)(B) directs that, "…State[s] shall adopt criteria for all toxic pollutants listed pursuant to section 307(a)(1) of this Act for which criteria have been published under Section 304(a), the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses." EPA's role in reviewing and approving HHWQC (a component of the state standard) is to ensure that the final standard is adequately protective of fish consumers. We believe that EPA is overstating its authority by dictating that states use overly conservative input values and risk levels in the already extremely conservative and protective formula for deriving criteria, for example, by requiring a very high Fish Consumption Rate (FCR).

In a June 21, 2013 letter from the EPA to the Washington Department of Ecology, EPA Region 10 Administrator McLerran threatens to issue a federal rule if Washington's process is "unnecessarily delayed." The letter states that EPA expects Washington to adopt the same high FCR and risk levels as were adopted in Oregon.

The Oregon standards, adopted in 2011, are expected to result in numerous new impaired waters listings, TMDLs, and CWA permit limits that cannot be met with existing technology. Indeed, some limits would require facilities' discharges to be cleaner than the background water they take in. Administrator McLerran's letter also references EPA's actions in Idaho,

- Letter from Idaho and Washington Republican House members to EPA (7/26/13):

"The Oregon standards, adopted in 2011, are expected to result in … permit levels that cannot be met with existing technologies."

"EPA should let the states make the appropriate, individual policy choices, not attempt to dictate them in a less than transparent manner."

What's at Stake

- We all want clean water
- We all want to protect human health
- But we also want a thriving economy and job opportunities for Idahoans
- HDR study estimates average costs for typical 5 million gal/day treatment facility

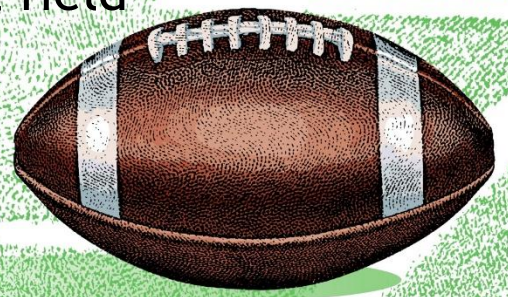
An existing facility
$3M-$10M
more per year

A new facility
$4.7M-$15.5M
per year

Total Cost
$75-$300M
more over 25 year facility life

Putting Risk in Context

- EPA strongly suggesting Oregon-style Excess Lifetime Cancer Risk (ELCR) of 1 in 1,000,000 for heavy fish consumers. This equates to 1 in 10,000,000 for average consumers
- 1 in 10,000,000 is less than a single 1" postage stamp on a football field (including the end zones!)



Comparing Risks

- Oregon standard equates to 1-in-10,000,000 Excess Lifetime Cancer Rate
- A person would be:

29 times
more likely to die in a fireworks accident

125 times
more likely to die by a lightning strike

1.43 Million times
more likely to die of cancer from some other cause

Compounding Impact of Using Most Extreme Conservative Policies

High assumptions of fish and surface water consumption + Inclusion of all fish in calculation + Conservative relative source contribution + Extremely low risk level

= Technologically Unattainable Standards

One Number Doesn't Fit All – Probabilistic Risk Assessment

- We are all different – equal protection impossible. This method can characterize risk for all consumers
- HHWQC determined by all assumptions that affect exposure and risk, not any single assumption
- Allows use of all information (e.g., distributions instead of point estimates) that affect exposure and risk
- Separates risk assessment from risk management better than deterministic (single point estimate) approaches
- EPA has supported this approach in FL

What's Next in Idaho

- **May 2014:** General population fish consumption survey in the field
- **January 2015:** Tribal survey data available to State of Idaho
- **April 2015:** Analysis of survey data complete
- **Summer 2015:** Proposed Rule available for public comment
- **November 2015:** Board presentation of Proposed Rule
- **Jan - March 2016:** Legislative presentation on Proposed Rule
- **May 2016:** EPA rules on Idaho's water quality standards

Call to Action

- Support IDEQ efforts to find solution that works for all Idahoans
- Support use of best available science – using current local data and probabilistic model
- Resist EPA Region 10 pressure to force another state's approach onto Idahoans